

RESTON PRESBYTERIAN CHURCH

SPECIAL PERMIT AMENDMENT PLAT

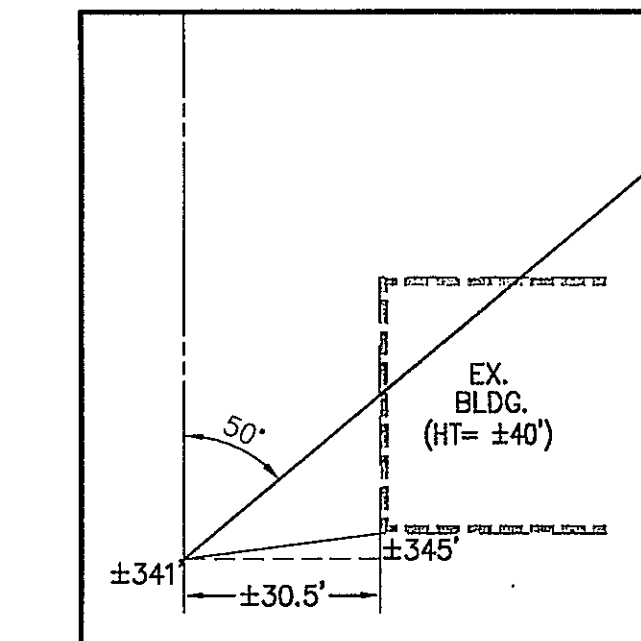
FAIRFAX COUNTY, VIRGINIA

NOTES

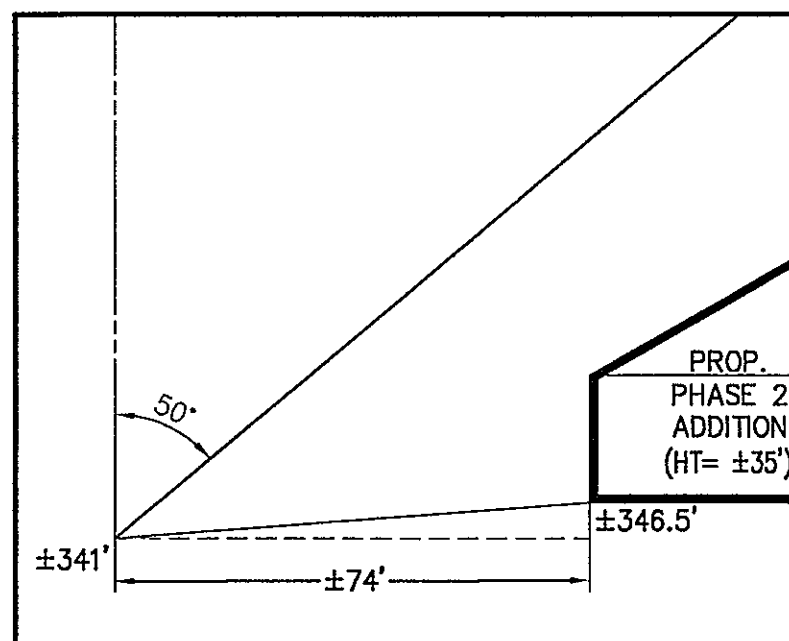
- OWNER/APPLICANT:
RESTON PRESBYTERIAN CHURCH
10610 SUNSET HILLS ROAD
RESTON, VA 20190
- PROPERTY IS DELINEATED ON ASSESSMENT MAP NUMBER
018-3-((1))-0006 AND IS ZONED R-E (RESIDENTIAL ESTATE).
- THIS APPLICATION REQUESTS A SPECIAL PERMIT FOR THE EXPANSION
OF THE EXISTING PLACE OF WORSHIP, ADDITION OF A CHILD CARE
CENTER/PRIVATE SCHOOL OF GENERAL EDUCATION, AND FOR A
REDUCTION OF THE FRONT YARD SETBACK AND ABP REQUIREMENTS
DUE TO EXISTING CONDITIONS.
- THE TOTAL SITE AREA IS ±217,473 SF OR 4.995 AC.
- TO THE BEST OF OUR KNOWLEDGE, ALL UTILITY EASEMENTS HAVING A
WIDTH OF 25 FEET OR MORE ON THIS PROPERTY ARE SHOWN.
- THIS PLAT DOES NOT SHOW ALL COVENANTS, EASEMENTS,
RESTRICTIONS, OR DEDICATIONS WHICH MAY EXIST IN THE CHAIN OF
TITLE.
- THE PROPOSED DEVELOPMENT CONFORMS TO ALL APPLICABLE
FAIRFAX COUNTY ORDINANCES, REGULATIONS, AND ADOPTED
STANDARDS.
- EXISTING CONDITIONS, BOUNDARY, AND TOPOGRAPHY INFORMATION
TAKEN FROM A FIELD SURVEY BY THIS FIRM DATED APRIL 2007.
CONTOUR INTERVAL IS 2 FEET.
- THE SITE IS CURRENTLY SERVED BY WELL WATER AND SEPTIC. AS
PART OF THE PROPOSED EXPANSION, A FORCE MAIN SANITARY SEWER
SYSTEM WILL BE INSTALLED DURING PHASE I, TO TIE INTO THE
EXISTING PUBLIC SANITARY SEWER LOCATED IN SUNSET HILLS ROAD.
A CONNECTION TO PUBLIC WATER IS ALSO PROPOSED.
- NO RESOURCE PROTECTION AREAS OR ENVIRONMENTAL QUALITY
CORRIDORS, AS DEFINED, ARE LOCATED ON THIS PROPERTY.
- NO GRAVES OR OTHER EVIDENCE OF BURIAL PLACES ARE FOUND ON
THIS PROPERTY.
- THIS PLAN IS CONCEPTUAL AND IS INTENDED TO BE USED IN
CONJUNCTION WITH THE LAND USE APPROVAL PROCESS ONLY. IT IS
NOT AN ENGINEERING CONSTRUCTION DRAWING, AND MINOR
DEVIATIONS AND ADJUSTMENTS MAY BE REQUIRED.
- A REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S
FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 515525
01500, REVISED MARCH 5, 1990, SHOWS THE PROPERTY TO LIE IN
FLOOD PLAIN X, "AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR
FLOODPLAIN".
- NO TRANSITIONAL SCREENING OR BARRIER IS REQUIRED ALONG THE
NORTH PROPERTY LINE, AS THE ADJACENT USE IS AN EXISTING
PRIVATE SCHOOL. NO TRANSITIONAL SCREENING OR BARRIER IS
REQUIRED ALONG THE EAST OR SOUTH PROPERTY LINE, DUE TO THE
COMMERCIAL USES ON THE OPPOSITE SIDE OF HUNTER MILL ROAD
AND SUNSET HILLS ROAD/DULLES TOLL ROAD, RESPECTIVELY.
- FINAL LOCATION OF TREE SAVE AREAS SHALL BE DETERMINED AT
TIME OF SITE PLAN, BUT SHALL BE NO LESS THAN THAT WHICH IS
SHOWN ON THIS PLAT. LOCATION OF ANY PROPOSED PLANTING WITHIN
TREE SAVE AREAS SHALL BE COORDINATED WITH THE URBAN FOREST
MANAGEMENT (UFM) DIVISION AT TIME OF PLANTING.
- APPLICANT RESERVES THE RIGHT TO ADD CELLAR SPACE WITH PHASE
II, WHICH WILL BE PARKED IN ACCORDANCE WITH THE FAIRFAX
COUNTY ZONING ORDINANCE REQUIREMENTS.
- APPLICANT RESERVES THE RIGHT TO USE ANY SQUARE FOOTAGE
PROPOSED IN PHASE I DURING PHASE II.
- THE EXISTING PROPANE TANK IS TO BE RELOCATED.

WAIVERS/MODIFICATIONS REQUESTED

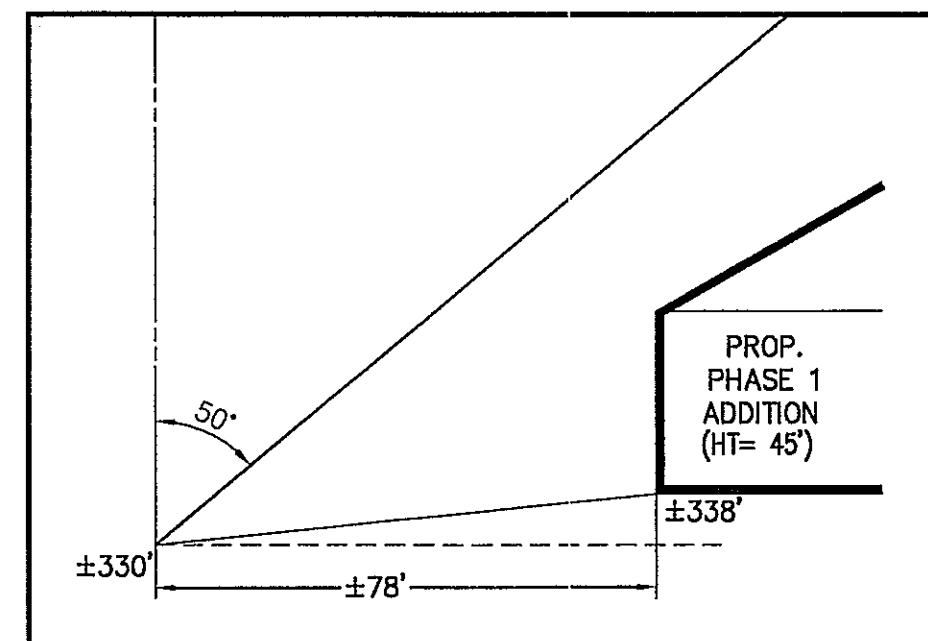
- A WAIVER OF THE BARRIER REQUIREMENT ALONG THE WESTERN
PROPERTY LINE.
- A MODIFICATION OF THE SCREENING REQUIREMENT ALONG THE
WESTERN PROPERTY LINE IN FAVOR OF THE EXISTING VEGETATION
THAT IS TO REMAIN.
- WAIVER IS REQUESTED FOR APPROVAL OF A SHARED PARKING
AGREEMENT FOR THE CHILD CARE/SCHOOL AND CHURCH USES.



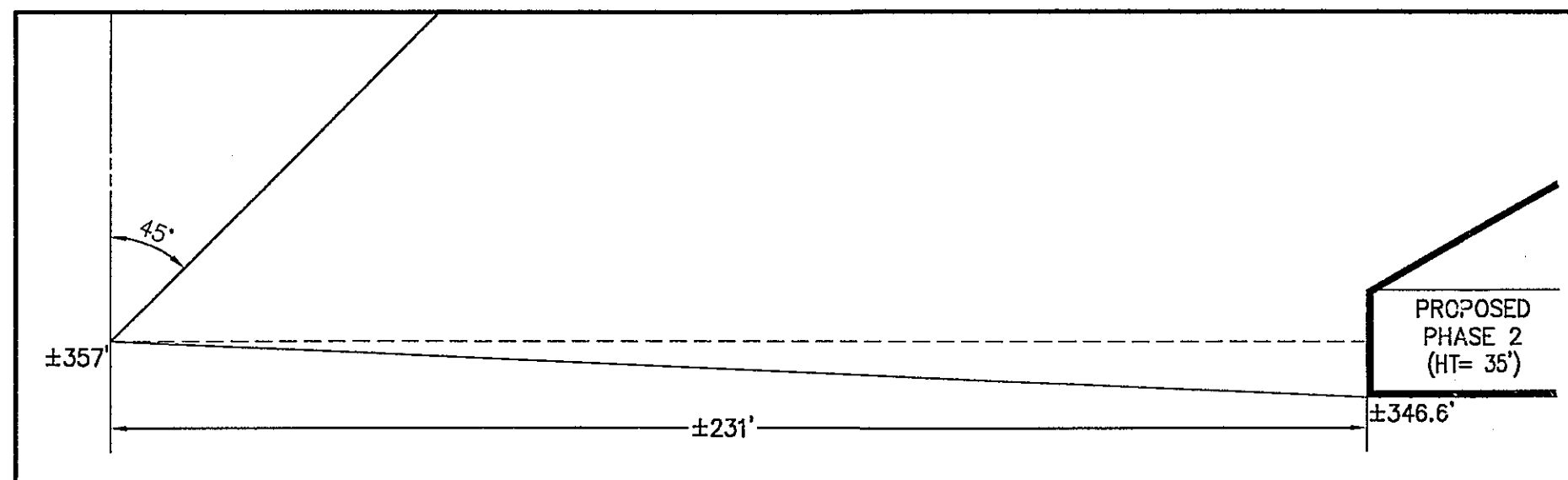
ANGLE OF BULK PLANE #1a
PHASE 1 - EX. BLDG.
(SUNSET HILLS ROAD)



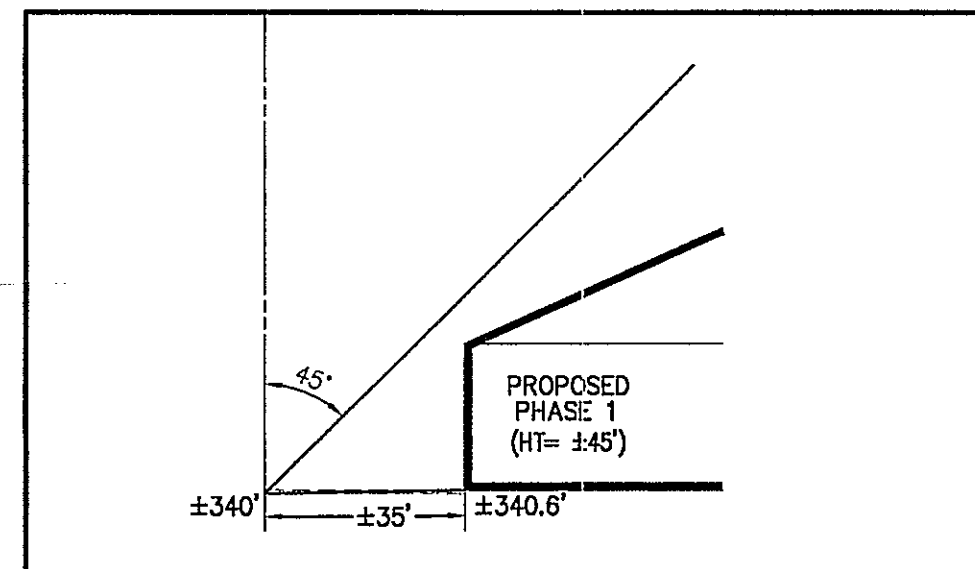
ANGLE OF BULK PLANE #1b
PHASE 2 - PROP. BLDG.
(SUNSET HILLS ROAD)



ANGLE OF BULK PLANE #2
(HUNTER MILL ROAD)



ANGLE OF BULK PLANE #3
(REAR YARD - PHASE 2)



ANGLE OF BULK PLANE #4
(SIDE YARD - PHASE 1)

ZONING TABULATION

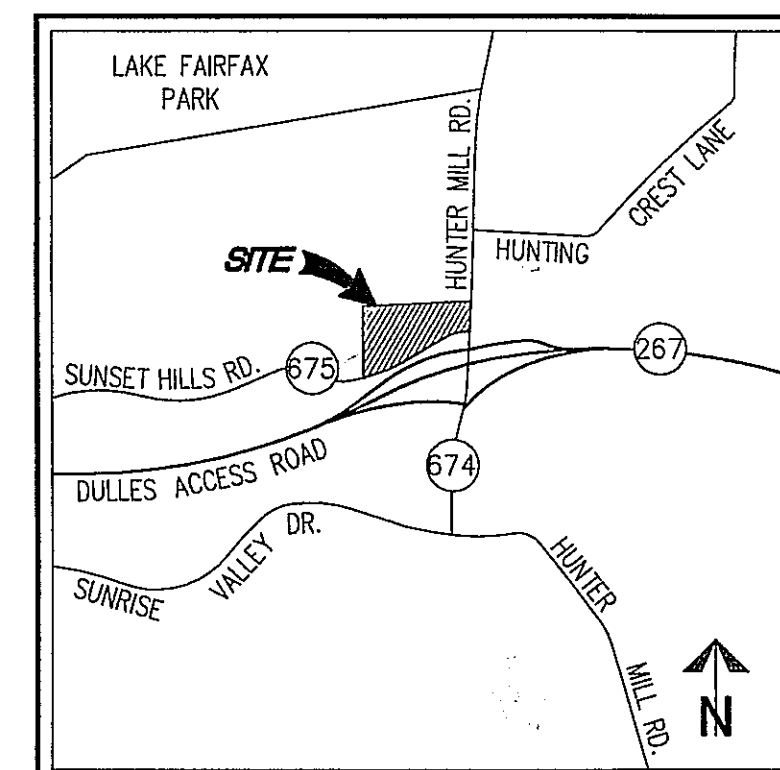
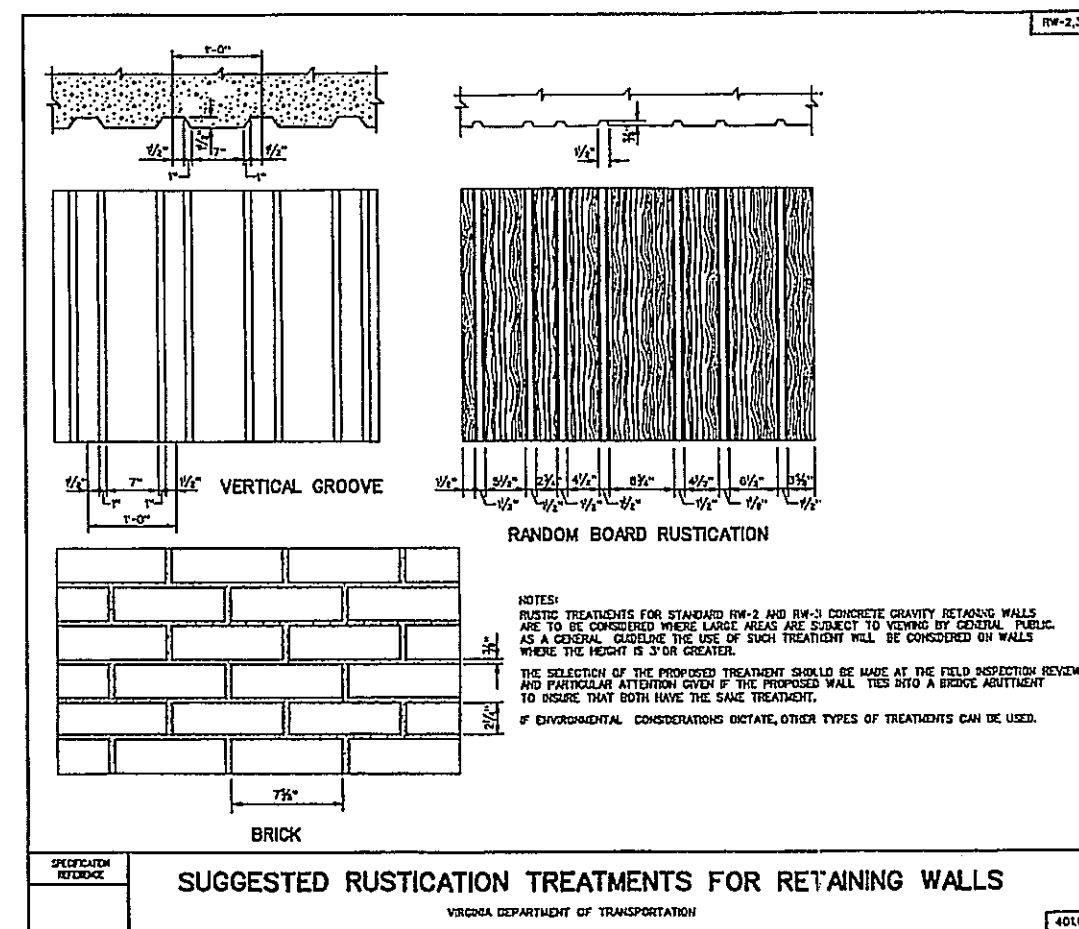
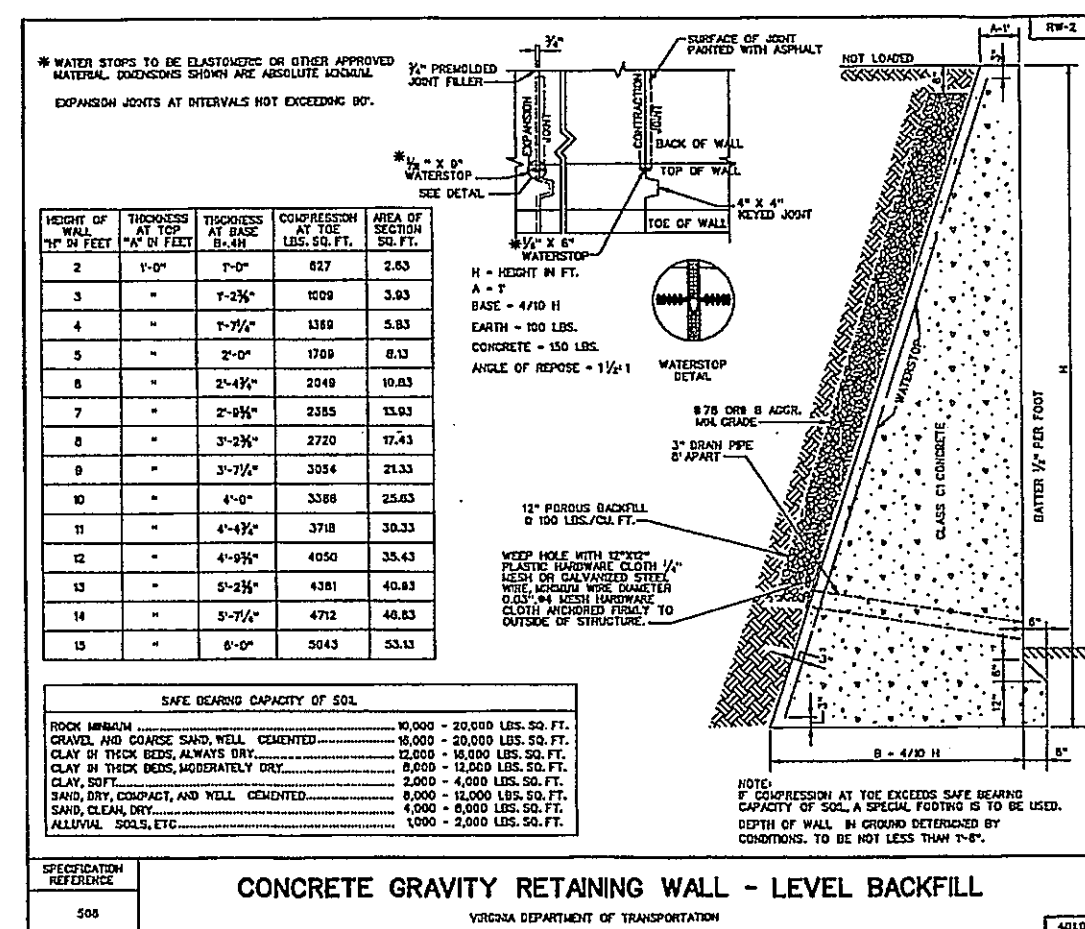
EX. ZONE: R-E, RESIDENTIAL ESTATE DISTRICT

	REQUIRED	PROVIDED
LOT AREA:	75,000 SF	±217,473 SF/±4.995 AC
LOT WIDTH:	225 FT	±194 FT (EXISTING CONDITION)
MAX BLD HT:	60 FT	±35 FT; ±45 FT
YARD REQUIREMENTS:		
FRONT	50' ABP; 50'	±30.5 FT*
SIDE	45' ABP; 20'	±35 FT
REAR	45' ABP; 25'	±231 FT
MAX FAR:	0.15	(SEE CHART BELOW)
OPEN SPACE:	NONE	N/A
INTERIOR PARKING		
LOT LANDSCAPING:	5%	SEE SHEETS 3 & 4
TREE COVER:	30%	SEE SHEETS 3 & 4

* EXISTING CONDITION (SEE NOTE 3)

BLDG. AREA/FAR TABULATION

	AREA	FAR
PHASE I		
EX. BUILDING	= ± 3,500 GSF	
(TO REMAIN W/ PHASE I)		
(TO BE REMOVED W/ PHASE II)		
PROP. BLDG. PHASE I	= ±13,350 GSF	
TOTAL BLDG. AREA PHASE I	= ±16,850 GSF	= ±0.08
PHASE II		
PROP. BLDG. AREA PHASE II	= ±13,150 GSF	
TOTAL BLDG AREA	= ±26,500 GSF	= ±0.12



VICINITY MAP SCALE: 1"=2000'

PARKING TABULATION:

USE: PLACE OF WORSHIP/CHILD CARE CENTER/
SCHOOL OF GENERAL EDUCATION

RATE: PLACE OF WORSHIP
1 SPACE PER EVERY 4 SEATS
450 SEATS/4 = 113

RATE: SCHOOL OF GENERAL EDUCATION (FOR STUDENT BREAKDOWN, SEE CHART BELOW)
1 SPACE PER STAFF MEMBER PLUS 4 VISITOR SPACES;
0.3 SPACES FOR HIGH SCHOOL STUDENTS
PHASE I: 12 STAFF MEMBERS + 4 = 16 SPACES
PHASE II: 56 HIGH SCHOOL STUDENTS X 0.3 = 17 SPACES
PHASE II: 20 STAFF MEMBERS + 4 = 24 SPACES

RATE: CHILD CARE CENTER** (FOR STUDENT BREAKDOWN, SEE CHART BELOW)
0.19 SPACE PER CHILD (MAX. DAILY
ENROLLMENT 99 OR LESS)
0.16 SPACE PER CHILD (MAX. DAILY
ENROLLMENT 100 OR MORE)

PHASE I: 100 CHILDREN (TOTAL) x 0.16 = 16 SPACES
PHASE II: 175 CHILDREN (TOTAL) x 0.16 = 28 SPACES

PARKING REQUIRED PHASE I = 113+16+16 = 145 SPACES*
PARKING PROVIDED PHASE I = 139 SPACES*
(INCL. 5 HC)
PARKING REQUIRED PHASE II = 113+17+24+28 = 182 SPACES*
PARKING PROVIDED PHASE II = 142 SPACES*
(INCL. 6 HC)

*APPROVAL OF SHARED PARKING AGREEMENT FOR THE CHILD CARE/
SCHOOL AND CHURCH USES IS REQUESTED
**CHILD CARE ENROLLMENT TO BE INCREASED IN 2 PHASES

USABLE OUTDOOR RECREATION TABULATION

PROVIDED: ±10,500 SF OF USABLE OUTDOOR RECREATION AREA DURING EACH PHASE
(SEE AREA DESIGNATED ON PLAN)

REQUIRED: PRE-K = 100 SF/CHILD OUTSIDE AT A GIVEN TIME
K-3 = 200 SF/CHILD OUTSIDE AT A GIVEN TIME
4-12 = 430 SF/CHILD OUTSIDE AT A GIVEN TIME

PROPOSED: PRE-K = 105 STUDENTS (MAX. OUTSIDE AT A GIVEN TIME)
K-3 = 52 STUDENTS (MAX. OUTSIDE AT A GIVEN TIME)
4-12 = 24 STUDENTS (MAX. OUTSIDE AT A GIVEN TIME)

*STUDENTS RECESSES WILL BE STAGGERED TO PROVIDE CHILDREN WITH
ADEQUATE OUTDOOR RECREATION SPACE FOR THE BEFORE AND AFTER-SCHOOL
CARE FOR THE CHILDREN ATTENDING THE SCHOOL.

SHEET INDEX

- COVER SHEET
- EXISTING CONDITIONS PLAN
- EXISTING VEGETATION MAP
- SPECIAL PERMIT AMENDMENT PLAT - PHASE 1
- SPECIAL PERMIT AMENDMENT PLAT - PHASE 2
- PRELIMINARY STORMWATER MANAGEMENT PLAN
- SUNSET HILLS ROAD - SIGHT DISTANCE PLAN & PROFILE
- ARCHITECTURAL ELEVATIONS
- ARCHITECTURAL ELEVATIONS

RECEIVED
Department of Planning
MAY 04 2008
Zoning Evaluation Division

COVER SHEET
RESTON PRESBYTERIAN CHURCH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

REVISION APPROVED BY

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EXISTING CONDITIONS PLAN

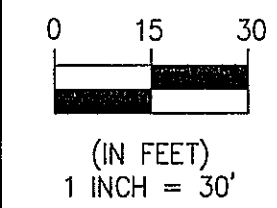
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DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

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WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301
WWW.WLPINC.COM
DATE: 11/15/07 REV. 3/16/08: 9/26/08
REV. 10/17/08: 12/23/08: 5/4/09
DRAWN: meo
SCALE: 1" = 30'



EXISTING VEGETATION MAP INFORMATION						
	COVER TYPE	PRIMARY SPECIES	SUCCESIONAL STAGE	CONDITION	ACREAGE	COMMENTS
A	UPLAND FOREST	OAK, MAPLE, PINE	SUBCLIMAX	GOOD TO FAIR	80,005 SF 1.84 AC	
B	DEVELOPED LAND	BUILDINGS, PARKING AREAS, WALKS, ETC.	N/A	N/A	45,391 SF 1.04 AC	
C	MAINTAINED GRASSLANDS	LANDSCAPED AREAS, ATHLETIC FIELD	N/A	N/A	92,077 SF 2.11 AC	

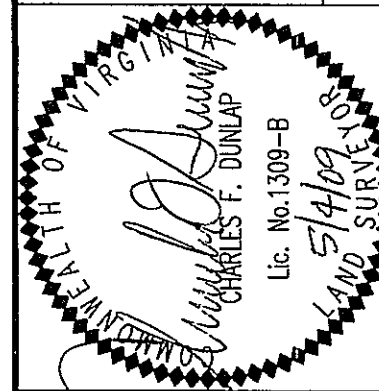
TOTAL SITE AREA: 217,473 SF OR 4.99 AC

EXISTING VEGETATION MAP

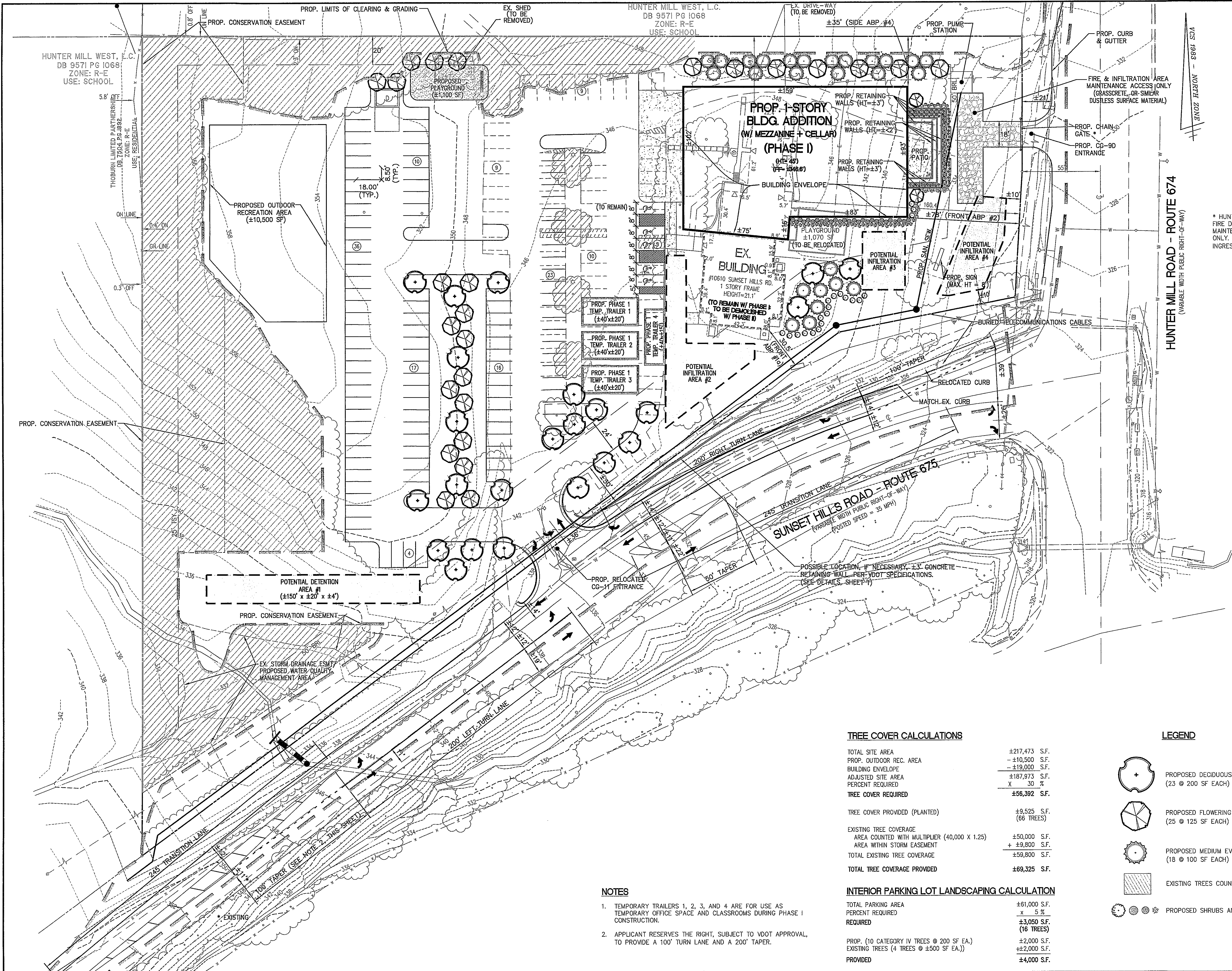
RESTON
PRESBYTERIAN CHURCH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

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WALTER L. PHILLIPS
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CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301 WWW.WLPINC.COM
DATE: 11/15/07 REV. 3/6/08 9/26/08
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SCALE: 1" = 30'
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* HUNTER MILL ROAD ACCESS IS FOR FIRE DEPARTMENT AND FOR PERIODIC MAINTENANCE OF THE PUMP STATION ONLY. NO REGULAR CHURCH TRAFFIC INGRESS/EGRESS IS PROPOSED.

TREE COVER CALCULATIONS

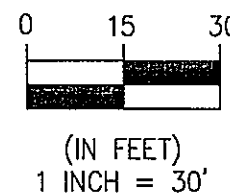
TOTAL SITE AREA	±217,473 S.F.
PROP. OUTDOOR REC. AREA	±10,500 S.F.
BUILDING ENVELOPE	±19,000 S.F.
ADJUSTED SITE AREA	±187,973 S.F.
PERCENT REQUIRED	X 30 %
TREE COVER REQUIRED	±56,392 S.F.
TREE COVER PROVIDED (PLANTED)	±9,525 S.F. (66 TREES)
EXISTING TREE COVERAGE	±50,000 S.F.
AREA COUNTED WITH MULTIPLIER (40,000 X 1.25)	+ ±9,800 S.F.
TOTAL EXISTING TREE COVERAGE	±59,800 S.F.
TOTAL TREE COVERAGE PROVIDED	±69,325 S.F.

INTERIOR PARKING LOT LANDSCAPING CALCULATION

TOTAL PARKING AREA	±61,000 S.F.
PERCENT REQUIRED	X 5 %
REQUIRED	±3,050 S.F. (16 TREES)
PROP. (10 CATEGORY IV TREES @ 200 SF EA.)	±2,000 S.F.
EXISTING TREES (4 TREES @ ±500 SF EA.)	±2,000 S.F.
PROVIDED	±4,000 S.F.

LEGEND

- PROPOSED DECIDUOUS TREES
(23 @ 200 SF EACH)
- PROPOSED FLOWERING OR UNDERSTORY TREES
(25 @ 125 SF EACH)
- PROPOSED MEDIUM EVERGREEN TREES
(18 @ 100 SF EACH)
- EXISTING TREES COUNTED TOWARDS TREE COVER
- PROPOSED SHRUBS AND GRASSES

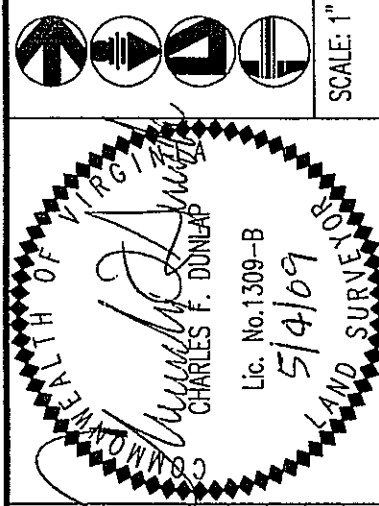


SPECIAL PERMIT AMENDMENT PLAT - PHASE I

RESTON
PRESBYTERIAN CHURCH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

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SCALE: 1" = 30'

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REV. 10/17/08 12/23/08 3/4/09

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207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
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CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS

INCORPORATED

WALTER L. PHILLIPS

STORMWATER MANAGEMENT SUMMARY

- I. PRE-DEVELOPMENT (EXISTING CONDITIONS): (TOTAL SITE)
- A. CONTRIBUTING AREAS:
- 3.98 AC. @ 0.30 (GREEN AREA, DN-SITE)
1.01 AC. @ 0.90 (ROOFS, DRIVEWAYS, SIDEWALKS, ETC.)
4.99 AC.
- B. WEIGHTED "C":
- $\frac{(3.98)(0.30)+(1.01)(0.90)}{4.99} = 0.42$
- C. TIME OF CONCENTRATION = 5 MIN.
- D. RUNOFF:
- $Q2 = (0.42)(5.45)(4.99) = 11.42 \text{ CFS}$
 $Q10 = (0.42)(7.27)(4.99) = 15.24 \text{ CFS}$

- II. POST-DEVELOPMENT (PROPOSED CONDITIONS): (TOTAL SITE)
- A. CONTRIBUTING AREAS:
- 2.78 AC. @ 0.30 (GREEN AREA, DN-SITE)
2.21 AC. @ 0.90 (PAVED AREA, DN-SITE)
4.99 AC.
- B. WEIGHTED "C":
- $\frac{(2.78)(0.30)+(2.21)(0.90)}{4.99} = 0.57$
- C. RUNOFF: PLEASE SEE INDIVIDUAL DRAINAGE AREA RUNOFF CDPIATIONS IN SECTIONS III THROUGH VII, BELOW.

- III. POST-DEVELOPMENT - DRAINAGE AREA #1
- A. CONTRIBUTING AREAS:
- 0.17 AC. @ 0.30 (GREEN AREA, DN-SITE)
0.61 AC. @ 0.90 (PAVED AREA, DN-SITE)
0.78 AC.
- B. WEIGHTED "C":
- $\frac{(0.17)(0.30)+(0.61)(0.90)}{0.78} = 0.77$
- C. RUNOFF:
- $Q2 = (0.77)(5.45)(0.78) = 3.27 \text{ CFS}$
 $Q10 = (0.77)(7.27)(0.78) = 4.37 \text{ CFS}$

- IV. POST-DEVELOPMENT - DRAINAGE AREA #2
- A. CONTRIBUTING AREAS:
- 0.36 AC. @ 0.30 (GREEN AREA, DN-SITE)
0.98 AC. @ 0.90 (PAVED AREA, DN-SITE)
1.34 AC.
- B. WEIGHTED "C":
- $\frac{(0.36)(0.30)+(0.98)(0.90)}{1.34} = 0.74$
- C. RUNOFF:
- $Q2 = (0.74)(5.45)(1.34) = 5.40 \text{ CFS}$
 $Q10 = (0.74)(7.27)(1.34) = 7.21 \text{ CFS}$

- V. POST-DEVELOPMENT - DRAINAGE AREA #3
- A. CONTRIBUTING AREAS:
- 0.17 AC. @ 0.30 (GREEN AREA, DN-SITE)
0.25 AC. @ 0.90 (PAVED AREA, DN-SITE)
0.42 AC.
- B. WEIGHTED "C":
- $\frac{(0.17)(0.30)+(0.25)(0.90)}{0.42} = 0.66$
- C. RUNOFF:
- $Q2 = (0.66)(5.45)(0.42) = 1.51 \text{ CFS}$
 $Q10 = (0.66)(7.27)(0.42) = 2.02 \text{ CFS}$

- VI. POST-DEVELOPMENT - DRAINAGE AREA #4
- A. CONTRIBUTING AREAS:
- 0.12 AC. @ 0.30 (GREEN AREA, DN-SITE)
0.37 AC. @ 0.90 (PAVED AREA, DN-SITE)
0.49 AC.
- B. WEIGHTED "C":
- $\frac{(0.12)(0.30)+(0.37)(0.90)}{0.49} = 0.75$
- C. RUNOFF:
- $Q2 = (0.75)(5.45)(0.49) = 2.00 \text{ CFS}$
 $Q10 = (0.75)(7.27)(0.49) = 2.67 \text{ CFS}$

- VII. POST-DEVELOPMENT - DRAINAGE AREA #5
- A. CONTRIBUTING AREAS:
- 1.96 AC. @ 0.30 (GREEN AREA, DN-SITE)
- B. C = 0.30
- C. RUNOFF:
- $Q2 = (0.30)(5.45)(1.96) = 3.20 \text{ CFS}$
 $Q10 = (0.30)(7.27)(1.96) = 4.27 \text{ CFS}$

BMP FACILITY DESIGN CALCULATIONS

PART 1 - LIST ALL OF SUBAREAS & "C" FACTORS USED IN THE BMP COMPUTATIONS

(1) DESCRIPTION	(2) "C"	(3) ACRES
A1 ONSITE CONTROLLED (DETENTION #1)	0.77	0.78
A2 ONSITE CONTROLLED (INFIL. TRENCH #2)	0.74	1.34
A3 ONSITE CONTROLLED (INFIL. TRENCH #3)	0.66	0.42
A4 ONSITE UNCONTROLLED (INFIL. TRENCH #4)	0.75	0.49
A5 ONSITE UNCONTROLLED	0.30	1.96
		4.99

PART 2 - COMPUTE THE AVERAGE "C" FACTOR FOR THE ENTIRE SITE

(A) AREA OF SITE	(a) 4.99 AC		
(B) SUBAREA DESIGNATION	"C"	ACRES	PRODUCT
(1) A1	0.77	X 0.78	= 0.60
A2	0.74	X 1.34	= 0.99
A3	0.66	X 0.42	= 0.28
A4	0.75	X 0.49	= 0.37
A5	0.30	X 1.96	= 0.59
			(b) 2.83
(c) WEIGHTED "C" FACTOR	(b)/(a) = 2.83 / 4.99		= 0.57

PART 3: COMPUTE THE TOTAL PHOSPHORUS REMOVAL FOR THE SITE

SUBAREA DESIGNATION (1)	BMP TYPE (2)	REMOVAL EFF. (%) (3)	AREA RATIO (4)	"C" FACTOR RATIO (5)	PRODUCT (6)
A2 ONSITE DRAINAGE AREA #2 TO INFILTRATION		70	x 1.34/4.99	x 0.74/0.57	= 24.40
A3 ONSITE DRAINAGE AREA #3 TO INFILTRATION		70	x 0.42/4.99	x 0.66/0.57	= 6.82
A4 ONSITE DRAINAGE AREA #4 TO INFILTRATION		70	x 0.49/4.99	x 0.75/0.57	= 9.04
A5 ONSITE CONSERVATION EASEMENT		100	x 0.34/4.99	x 1.00	= 6.81
A6 ONSITE WATER QUALITY MANAGEMENT AREA		100	x 0.16/4.99	x 1.00	= 3.21
				(c) TOTAL =	50.28%

PART 4: DETERMINE COMPLIANCE WITH PHOSPHORUS REMOVAL REQUIREMENT

(A) SELECT REQUIREMENT	(a)
* WATER SUPPLY OVERLAY DISTRICT (OCCOQUAN WATERSHED) =	50 %
* CHESAPEAKE BAY PRESERVATION AREA (NEW DEVELOPMENT) =	40 %

(B) IF LINE 3(a) 50.28 ≥ LINE 4(a) 40 THEN PHOSPHORUS REMOVAL REQUIREMENT IS SATISFIED.

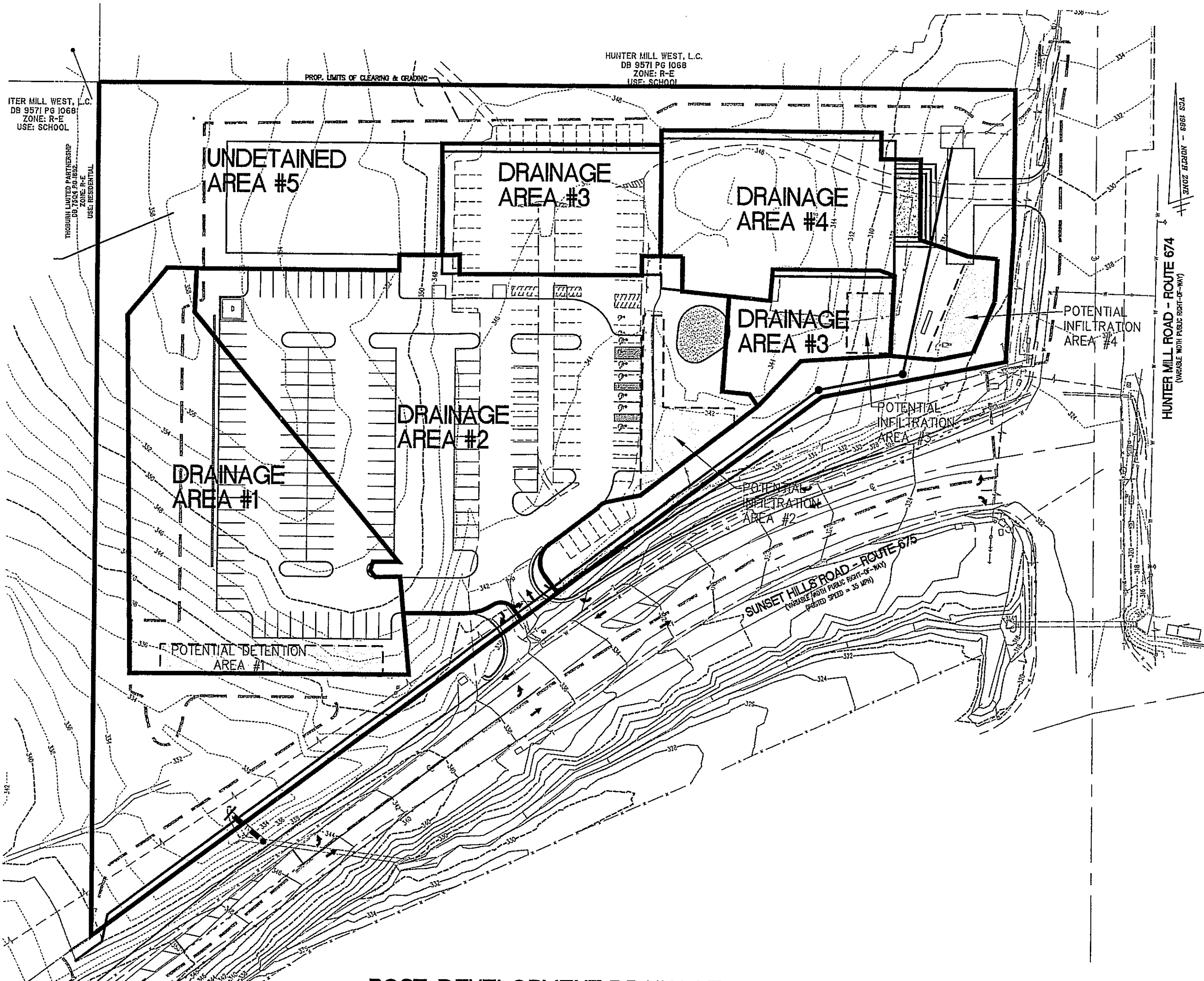
NOTE: PENDING FINAL ENGINEERING, PHOSPHORUS REMOVAL MAY CHANGE BUT WILL ULTIMATELY MEET THE 40% REQUIREMENT. ADDITIONAL BMP FACILITIES AND/OR CONSERVATION EASEMENTS MAY BE PROPOSED AT TIME OF SITE PLAN IF NECESSARY IN ORDER TO MEET THE PHOSPHORUS REMOVAL REQUIREMENT.

INFILTRATION NOTE

ALL INFILTRATION INFORMATION IS PER GEOTECHNICAL ANALYSIS PERFORMED BY ECS, LLC, DATED JUNE 9, 2008 IN ACCORDANCE WITH FAIRFAX COUNTY TESTING GUIDELINES FOR INFILTRATION FACILITIES, DATED MARCH 2007. PER THIS ANALYSIS, THE FOLLOWING DEPTHS AND INFILTRATION DESIGN RATES WERE USED:

INFILTRATION AREA 2 - SUBGRADE ELEV. 334 & DESIGN INFILTRATION RATE OF 2.8 IN/HR
INFILTRATION AREA 3 - SUBGRADE ELEV. 333 & DESIGN INFILTRATION RATE OF 2.2 IN/HR
INFILTRATION AREA 4 - SUBGRADE ELEV. 326 & DESIGN INFILTRATION RATE OF 2.7 IN/HR

FINAL INFILTRATION DESIGN WILL OCCUR WITH SITE PLAN. ALL INFILTRATION DESIGN IS SUBJECT TO CHANGE AT THAT TIME AND WILL COMPLY WITH ALL FAIRFAX COUNTY SIZING REGULATIONS.



POST-DEVELOPMENT DRAINAGE DVIDE DETAIL

SCALE: 1"=60'

BMP/SWM NARRATIVE:

THE SITE CURRENTLY CONTAINS AN EXISTING CHURCH BUILDING AND ACCESSORY STRUCTURES AND AN ASPHALT PARKING LOT. THE PRE-DEVELOPMENT IMPERVIOUS AREA IS 1.01 AC AND THE POST-DEVELOPMENT IMPERVIOUS AREA WILL BE INCREASED TO 2.21 ACRES. THE PHOSPHOROUS REMOVAL REQUIREMENT FOR THE SITE IS 40%. THIS REQUIREMENT IS PROPOSED TO BE MET THROUGH A COMBINATION OF BMP FACILITIES LOCATED IN DRAINAGE AREAS 2, 3, 4 AND 5 AS DESCRIBED BELOW.

THE PRE-DEVELOPMENT PEAK RELEASES FROM THE SITE ARE 11.42 CFS AND 15.24 CFS FOR THE 2 YEAR AND 10 YEAR STORMS RESPECTIVELY. THE POST-DEVELOPMENT RELEASE RATES FROM THE SITE WILL NOT EXCEED THESE PRE-DEVELOPMENT RELEASE RATES.

DRAINAGE AREA #1: AN EXTENDED DETENTION FACILITY IS PROPOSED TO BE PROVIDED IN THIS AREA. THIS EXTENDED DETENTION FACILITY IS SIZED PER PFM SECTION 6-0203.4C. PHOSPHOROUS REMOVAL MAY BE PROVIDED IN THIS AREA THROUGH THE USE OF STORMFILTER(S) AND/OR FILTERRA(S) AT TIME OF FINAL ENGINEERING. ADDITIONALLY, THE OUTFALL MAY BE RE-EVALUATED FOR ADEQUACY AT THE TIME OF SITE PLAN. IF IT IS FOUND THAT THE OUTFALL IS ADEQUATE TO THE EXTENT OF REVIEW DETERMINED USING PFM SECTION 6-0203.2, THEN STANDARD QUANTITY CONTROL WILL BE PROVIDED IN LIEU OF A FACILITY DESIGNED USING THE DETENTION METHOD.

DRAINAGE AREAS #2, 3 AND 4: INFILTRATION TRENCHES ARE PROPOSED TO BE PROVIDED IN THIS AREA. THESE INFILTRATION TRENCHES ARE SIZED TO INFILTRATE THE ENTIRE 10 YEAR STORM WITH A ZERO RELEASE RATE. THESE TRENCHES WILL ALSO SERVE AS A BMP AND WILL HAVE A PHOSPHOROUS REMOVAL EFFICIENCY OF 70%. THESE INFILTRATION TRENCHES WILL BE CONSTRUCTED USING VDOT 57 STONE AND/OR RAIN TANKS, OR SIMILAR STORAGE STRUCTURES, IN ORDER TO ACHIEVE THE REQUIRED STORAGE VOLUME.

DRAINAGE AREA #5: A ±0.34 ACRE CONSERVATION EASEMENT IS PROPOSED ALONG THE WESTERN SIDE OF THE PROPERTY. PHOSPHORUS REMOVAL CREDIT IS ASSIGNED TO THIS AREA.

DRAINAGE AREA #6: A ±0.16 ACRE WATER QUALITY MANAGEMENT AREA IS PROPOSED SOUTHWESTERN CORNER OF THE SITE WITHIN THE LIMITS OF THE EXISTING STORM DRAINAGE EASEMENT.

SEE INFILTRATION NOTE ON THIS SHEET FOR INFILTRATION SUMMARY.

THIS SWM/BMP DESIGN IS SUBJECT TO CHANGE WITH FUTURE ENGINEERING AND WILL BE RE-EVALUATED AND VERIFIED WITH FUTURE PLANS.

OUTFALL NARRATIVE:

THIS SITE ULTIMATELY DRAINS TO DIFFICULT RUN. THE STORMWATER FROM THIS SITE IS CONVEYED VIA SHEET FLOW AND STORM SEWER FLOW TO THE EXISTING BED AND BANKS OF A BRANCH OF DIFFICULT RUN. THE SITE IS DIVIDED INTO FIVE DRAINAGE AREAS. THE OUTFALL ANALYSIS FOR EACH DRAINAGE AREA IS AS FOLLOWS:

DRAINAGE AREA #1: AN EXTENDED DETENTION FACILITY IS PROPOSED TO BE PROVIDED IN THIS AREA. THIS EXTENDED DETENTION FACILITY IS SIZED TO MEET THE FAIRFAX COUNTY ADEQUATE OUTFALL REQUIREMENTS PER PFM SECTION 6-0203.4C. THE OUTFALL MAY BE RE-EVALUATED FOR ADEQUACY AT THE TIME OF SITE PLAN. IF IT IS FOUND THAT THE OUTFALL IS ADEQUATE TO THE EXTENT OF REVIEW DETERMINED USING PFM SECTION 6-0203.2, THEN STANDARD QUANTITY CONTROL WILL BE PROVIDED IN LIEU OF A FACILITY DESIGNED USING THE DETENTION METHOD.

DRAINAGE AREA #2: AN INFILTRATION TRENCH IS PROPOSED TO BE PROVIDED IN THIS AREA. THE PROPOSED INFILTRATION TRENCH WILL INFILTRATE THE ENTIRE 10 YEAR STORM. THEREFORE, THERE IS ZERO RUNOFF FROM THIS DRAINAGE AREA AND THE OUTFALL IS ADEQUATE.

DRAINAGE AREA #3: AN INFILTRATION TRENCH IS PROPOSED TO BE PROVIDED IN THIS AREA. THE PROPOSED INFILTRATION TRENCH WILL INFILTRATE THE ENTIRE 10 YEAR STORM. THEREFORE, THERE IS ZERO RUNOFF FROM THIS DRAINAGE AREA AND THE OUTFALL IS ADEQUATE.

DRAINAGE AREA #4: AN INFILTRATION TRENCH IS PROPOSED TO BE PROVIDED IN THIS AREA. THE PROPOSED INFILTRATION TRENCH WILL INFILTRATE THE ENTIRE 10 YEAR STORM. THEREFORE, THERE IS ZERO RUNOFF FROM THIS DRAINAGE AREA AND THE OUTFALL IS ADEQUATE.

DRAINAGE AREA #5: THE UNDETAINED AREA DOES NOT INCLUDE ANY IMPERVIOUS AREA. THE RUNOFF FROM THIS AREA FLOWS VIA SHEET FLOW ONLY. THE RUNOFF FROM THIS AREA IS NOT INCREASED FROM THE PREDEVELOPMENT CONDITIONS, THEREFORE PER PFM SECTION 6-0202.6, THIS DRAINAGE AREA HAS AN ADEQUATE OUTFALL.

IN SUMMARY, THE ADEQUATE OUTFALL REQUIREMENTS ARE PROPOSED TO BE MET THROUGH AN EXTENDED DETENTION FACILITY AND INFILTRATION TRENCHES. IT IS IN THE OPINION OF THE SUBMITTING ENGINEER THAT THE ADEQUATE OUTFALL REQUIREMENTS WILL BE MET WITH THE PROPOSED IMPROVEMENTS.

THIS PRELIMINARY OUTFALL ANALYSIS IS SUBJECT TO CHANGE WITH FUTURE ENGINEERING AND WILL BE REEVALUATED AND VERIFIED WITH FUTURE PLANS. SEE INFILTRATION NOTE ON THIS SHEET FOR INFILTRATION SUMMARY.

STORMWATER MANAGEMENT CHECKLIST

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:
Special Permits (8-011 2J & 2L)
Cluster Subdivision (8-015 1G & 1H)
Development Plans PRC District (16-302 3 & 4L)
FDP P Districts (except PRC) (16-502 1F & 1Q)

Special Exceptions (8-011 2J & 2L)
Commercial Revitalization Districts (9-622 2A (12) & (14))
PRC Plan (16-303 1E & 1O)
Amendments (18-202 10F & 10I)

- ☒ 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
- ☒ 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 3.

☒ 3. Provide:

Facility Name/Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
AREA #1	0.78	NA	0.78	±3000	±8000	NA
AREA #2	0.34	NA	1.34	±3075	±9500	NA
AREA #3	0.42	NA	0.42	±2500	±2500	NA
AREA #4	0.49	NA	0.49	±1923	±3500	NA
Totals						

- ☒ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 3.
Pond inlet and outlet pipe systems are shown on Sheet N/A.
- ☒ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 3.
Type of maintenance access road surface noted on the plat is GRASS/STONE (asphalt, geotext, gravel, etc.).
- ☒ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 2,3.
- ☒ 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 5.
- ☒ 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 5.
- ☒ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 5.
- ☒ 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 1,3.
- ☐ 11. A submission waiver is requested for _____.
- ☐ 12. Stormwater management is not required because _____.

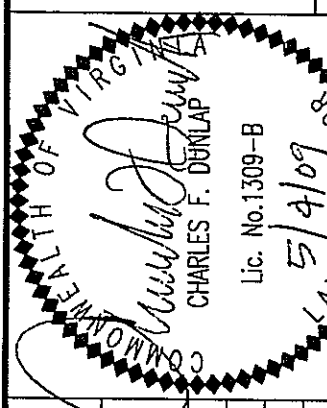
WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS
LAND SURVEYORS
PLANNERS
LANDSCAPE ARCHITECTS

207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 552-6163 FAX (703) 533-8801

WWW.WLPINC.COM

DATE: 11/15/07 REV. 3/6/08 9/26/08
REV. 10/17/08 12/23/08 5/1/09

SCALE: AS NOTED

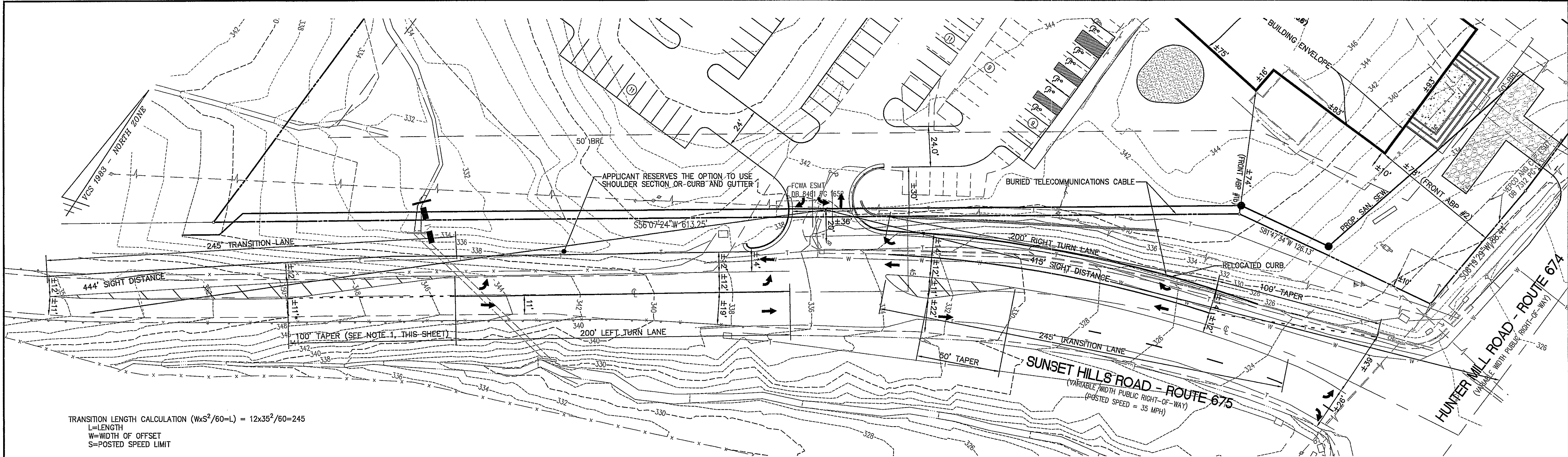


REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV.	BY	APPROVED

RESTON
PRESBYTERIAN CHURCH
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

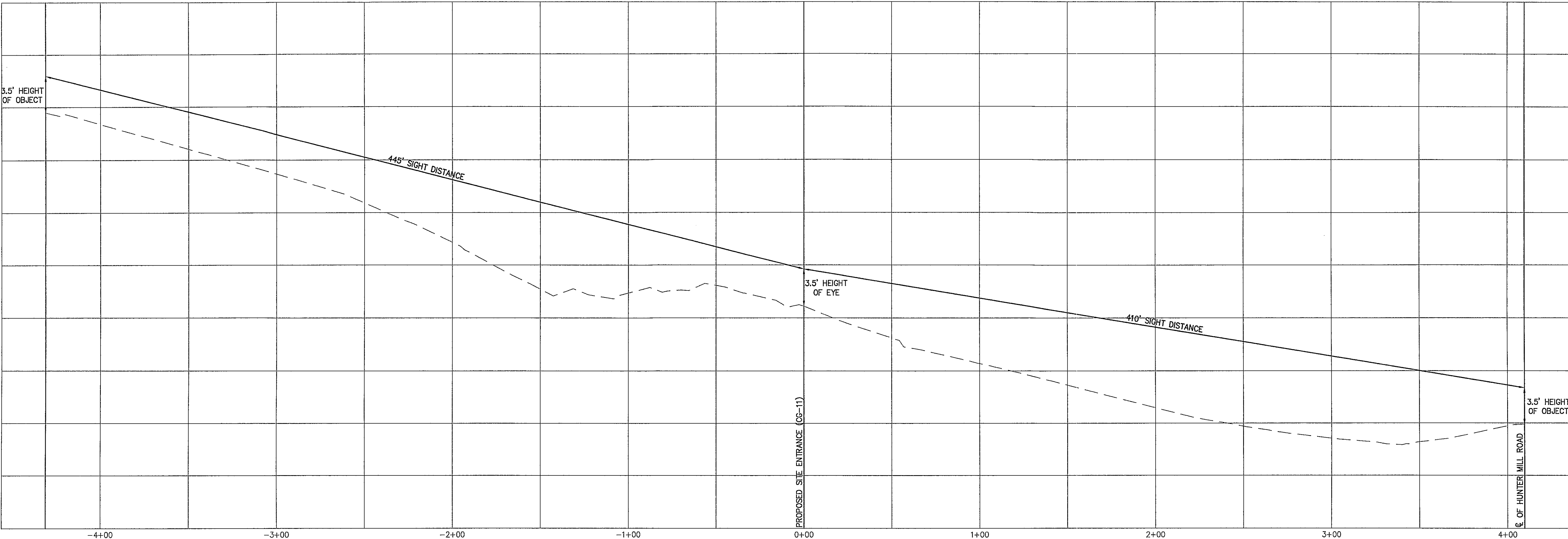
PRELIMINARY STORMWATER MANAGEMENT PLAN



TRANSITION LENGTH CALCULATION $(WxS^2/60=L) = 12x35^2/60=245$
L=LENGTH
W=WIDTH OF OFFSET
S=POSTED SPEED LIMIT

- NOTES**
1. APPLICANT RESERVES THE RIGHT, SUBJECT TO VDOT APPROVAL, TO PROVIDE A 100' TURN LANE AND A 200' TAPER.
 2. FINAL DESIGN OF ROAD WIDENING SUBJECT TO VDOT APPROVAL.

PLAN VIEW
SCALE: 1" = 30'
POSTED SPEED = 35 MPH
DESIGN SPEED = 40 MPH



PROFILE VIEW
SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 5'

SUNSET HILLS ROAD SIGHT DISTANCE PLAN AND PROFILE

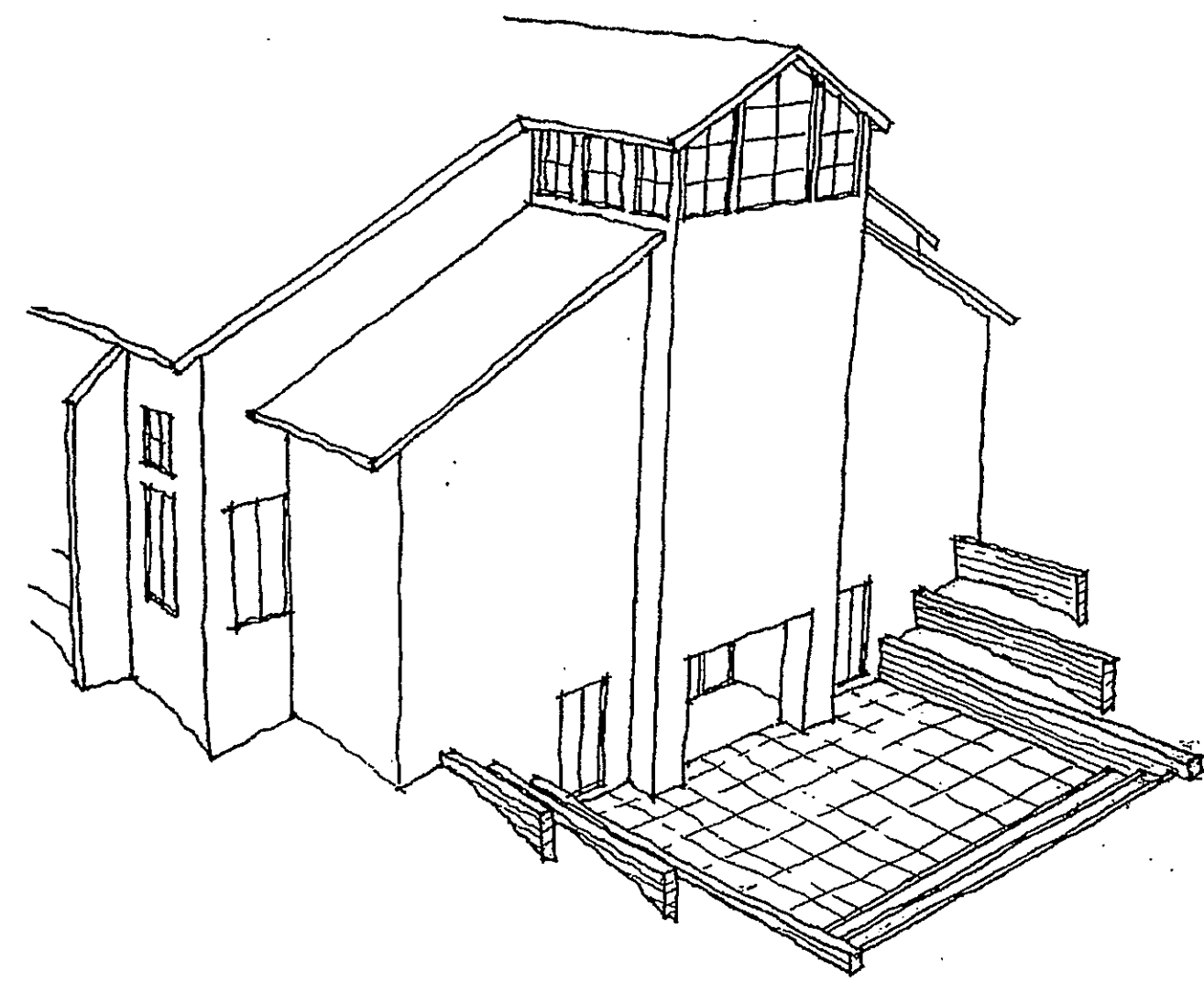
RESTON
PRESBYTERIAN CHURCH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED



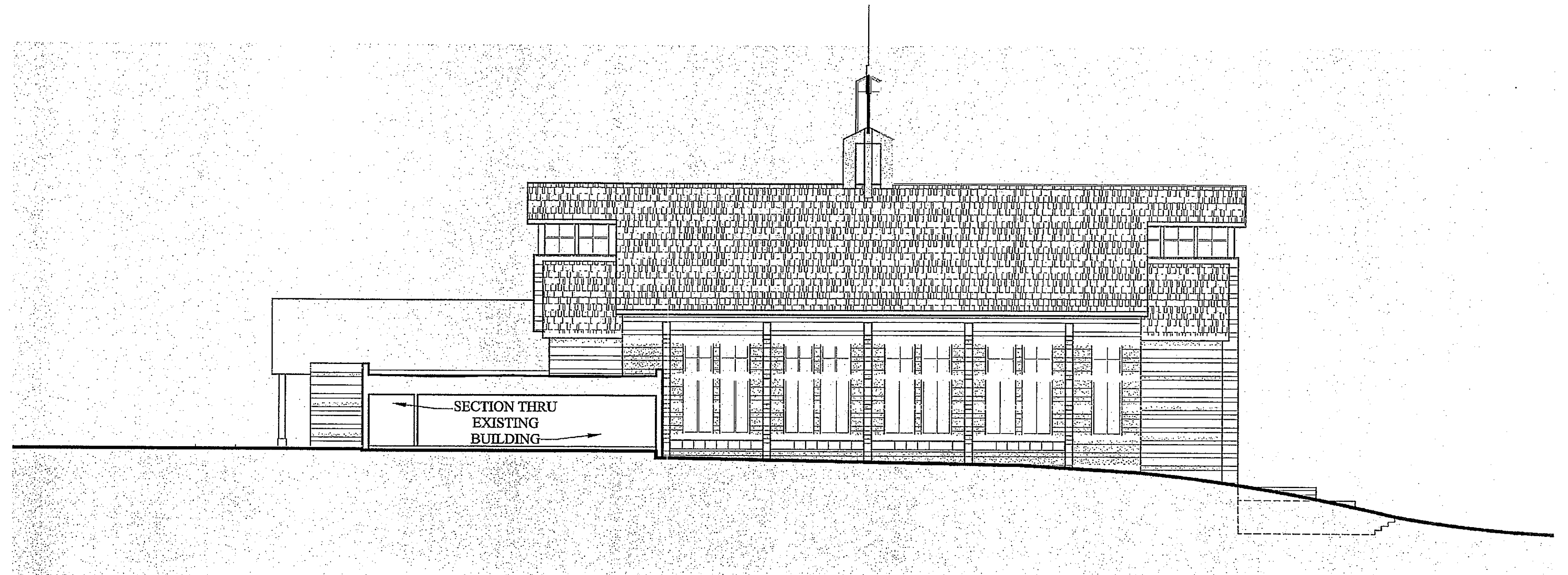
WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301
WWW.WLPINC.COM
DATE: 3/6/08 REV. 10/17/08
REV. 9/26/08 REV. 12/23/08 5/14/09
DRAWN: JK
SCALE: NONE



CHARACTER SKETCH: LOWER LEVEL RETAINING WALL AND PATIO
MARCH 11, 2009

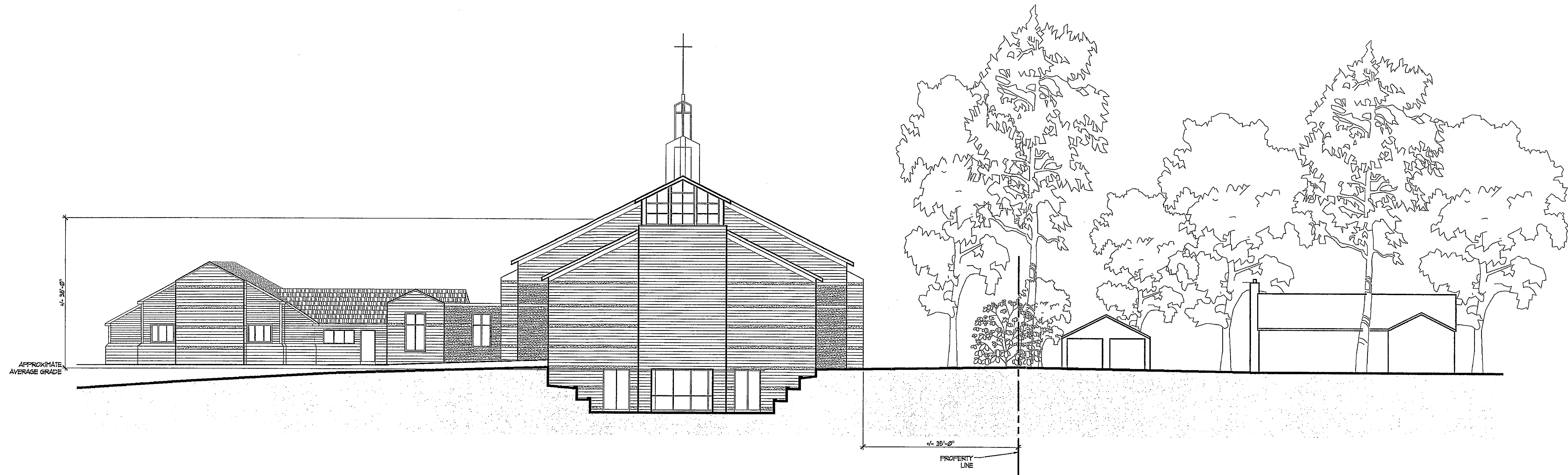
N.T.S.

LEMAY
ERICKSON
WILLCOX
ARCHITECTS



WEST ELEVATION

PRELIMINARY



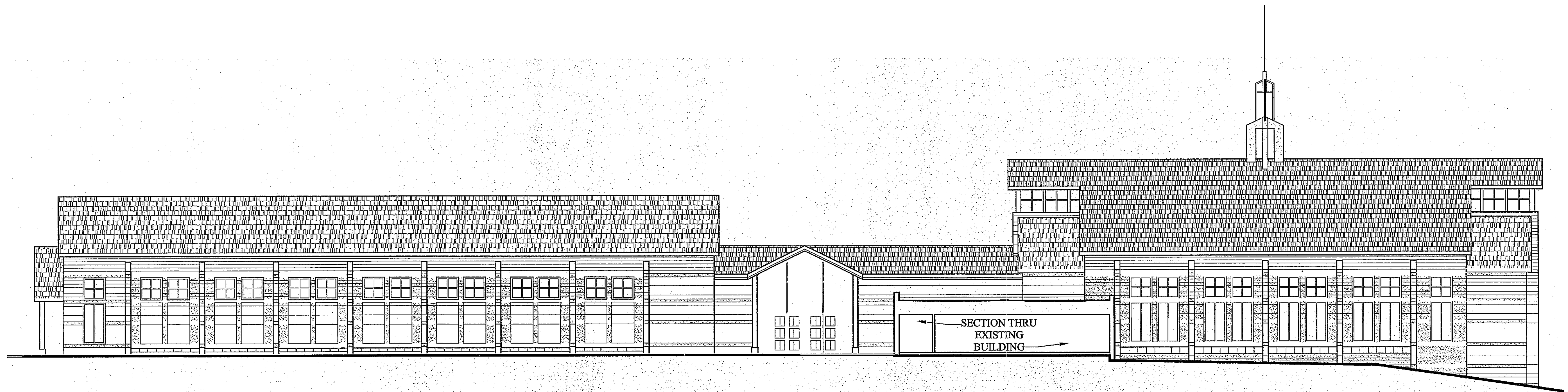
EAST ELEVATION

PRELIMINARY

NOTE

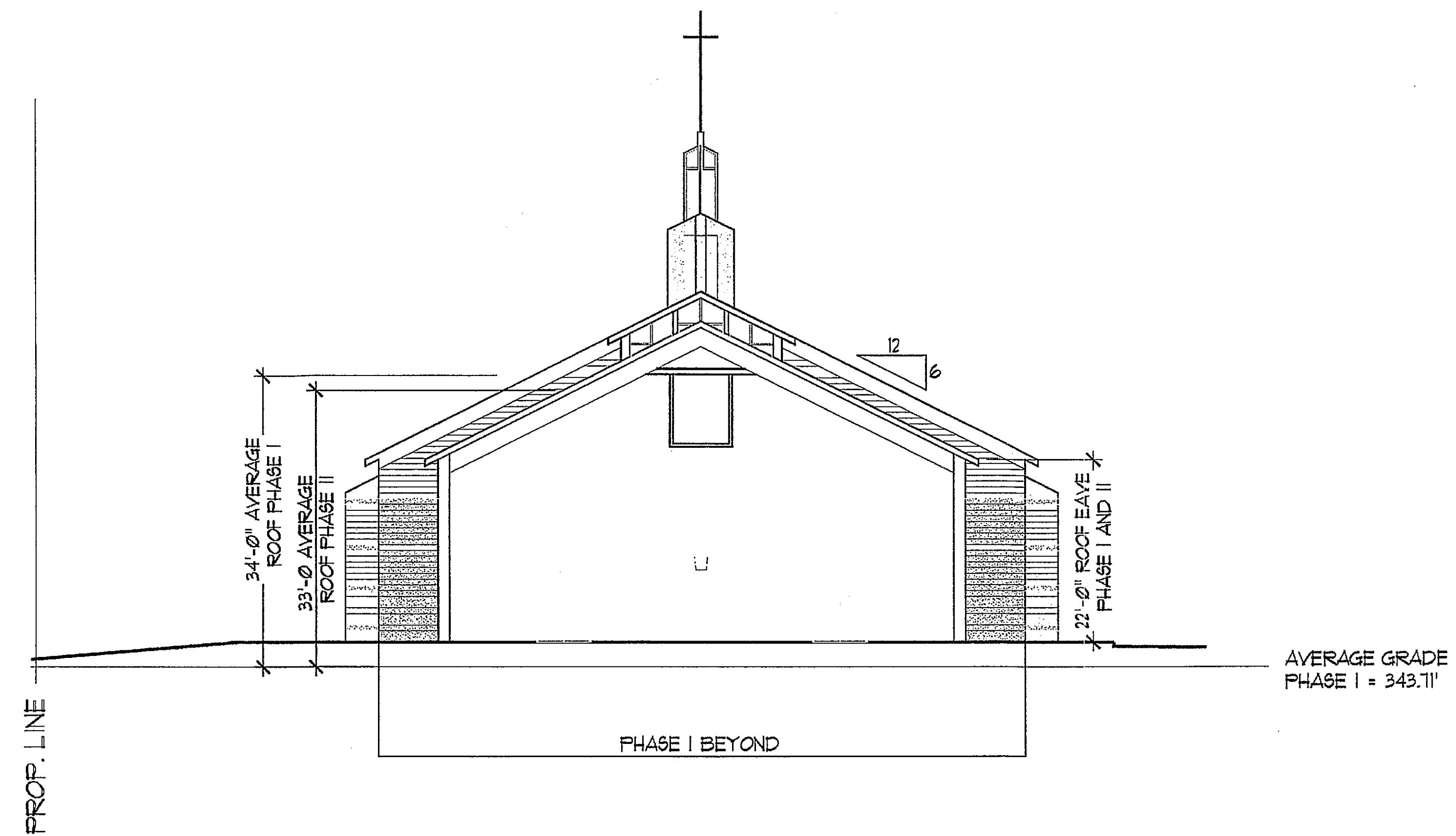
1. ALL ELEVATIONS ARE CONCEPTUAL AND WILL BE SUBJECT TO CHANGE WITH FINAL ENGINEERING AND DESIGN.

CONCEPTUAL PURPOSES ONLY



SOUTH ELEVATION

For Illustrative Purposes Only.
Subject to Final Engineering and Design.



PHASE II SECTION For Illustrative Purposes Only. Subject to Final Engineering and Design.

RESTON PRESBYTERIAN CHURCH

19 MARCH 2009

PRELIMINARY

LEMAY
ERICKSON
WILLCOX
ARCHITECTS